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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,561	08/23/2004	Rainer Schaenzel	11839/32	7553

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EXAMINER

LUM VANNUCCI, LEE SIN YEE

ART UNIT	PAPER NUMBER
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3611

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/505,561

Applicant(s)

SCHAENZEL, RAINER

Examiner

Lee Lum

Art Unit

3611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-16, 21 and 22 is/are rejected.
- 7) ☒ Claim(s) 17-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A Preliminary Amendment was filed 8/23/04, which cancelled Claims 1-10, and added Claims 11-22.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11, 12, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Pietrzak et al 4809806.

Pietrzak discloses a rack-and-pinion steering system 10 for vehicles comprising
Pinion 74 and rack 12, the latter arranged in a steering mechanism housing 22, with
ends connected to tie rod 20,

Pressure piece/block 54, including adjusting screw/cap 56, maintaining the pinion and
rack in constant engagement,

Sealing bellows (unidentified in fig 1) fastened on one side to the housing, and on
another side to the tie rod,

Pressure compensation element/spring 58 integrated in the pressure piece/block, and
housing, and,

the adjusting screw/cap includes the pressure compensation element/spring.

Art Unit: 3611

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

A. **Claims 13 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Pietrzak in view of Ookouchi et al 5634977.

Pietrzak discloses the elements as provided above, but does not disclose the pressure piece/pressure compensation element/spring as made of a sintered porous material. Ookouchi shows this material as coatings on structures that undergo similar actions; i.e., sliding and compression within another structure. Column 3, ln 63, to c4, ln 7, disclose that use of this material have improved corrosion and abrasion resistance.

Thus it would have been obvious to one with ordinary skill in the art at the time the invention was made to include this material, as shown in Ookouchi, to minimize corrosion, and abrasion resistance, yet have the requisite strength and durability for the particular application.

B. **Claims 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Pietrzak in view of Gotthelf 5443083.

Re **Claim 15**, Pietrzak discloses the elements as provided above, but does not disclose the pressure compensation piece/spring as including a porous sintered plastic insert. Gotthelf shows a sintered plastic filter/insert 192, where column 7, ln 42-51 provides that it "[does not] generate contaminants, [nor] suffer from corrosion problems like...metal".

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to include this material, as shown in Gotthelf, to minimize contamination and corrosion, yet have the requisite strength and durability for the particular application.

Re **Claim 16**, Pietrzak discloses the steering mechanism housing as including shell 34, the latter of which includes cutout/bore 52 to fit the insert 54.

Art Unit: 3611

4. **Claims 17-20** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Prior art does not disclose the invention described above further including, *inter alia*, the insert as a pressed pellet into the cutout (bore).


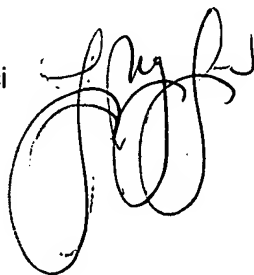
5. The prior art found pertinent to the disclosure, but not relied upon, includes:
Oslapas et al 4987963, Butler 4721175.

6. Communication with the Examiner/USPTO

Any inquiry concerning this communication, or others, should be directed to Ms. Lum at 571 272 6649, M-F, 9-5. If she can't be reached, her supervisor, Ms. Lesley Morris, may be reached at 571 272 6651. Our fax number is 571 273 8300.

Information re the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) System as follows: for unpublished apps - private PAIR only, for published apps - private or public PAIR.

Ms. Lee Lum-Vannucci
Examiner
1/19/06



LESLEY D. MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600